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HORSE COAT COLOR TEST RESULTS

ROXANNE RIGGS SUNSHINE FARM & GARDEN 2460 WIXOM RD COMMERCE TWP, MI 48382	Case: DT21913 Date Received: 05-Jun-2009 Report Date: 12-Jun-2009 Report ID: 6733-2294-7462-1102
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Horse: SFG DARJEELING TEA YOB: 00 Breed: MH Sex: M	Reg: Alt. ID:
Sire: SFG GOLD SNAPDRAGON Dam: CW'S SWEET SILVER	Reg: 00152579 Reg: 00153627

RED FACTOR	Both black and red factors detected. Either E or e transmitted to offspring. Basic color is black, bay or brown in the absence of other modifying genes.
E/e	
AGOUTI	Only recessive allele detected. Black pigment distributed uniformly. Basic color is black in the absence of other modifying genes.
a/a	
CREAM DILUTION	Heterozygous, dilute, one copy of Cream gene. Typical colors are palomino, buckskin and smoky black in the absence of other modifying genes.
N/Cr	
PEARL DILUTION	Not requested.
SILVER DILUTION	Not requested.
LETHAL WHITE OVERO	Not requested.
SABINO 1	Not requested.
TOBIANO	Not requested.
CHAMPAGNE	Not requested.

Horse Coat Color Results with Explanations

Red Factor

e/e - Only the red factor detected. Basic color is sorrel or chestnut in the absence of other modifying genes.

E/e - Both black and red factors detected. Either E or e transmitted to offspring. Basic color is black, bay or brown in the absence of other modifying genes.

E/E - No red factor detected. Horse cannot have red foals regardless of the color of mate. Basic color is black, bay or brown in the absence of other modifying genes.

Agouti

A/A - Black pigment distributed in points pattern. Basic color is bay or brown in the absence of other modifying genes.

A/a - Black pigment distributed in points pattern. Basic color is bay or brown in the absence of other modifying genes.

a/a - Only recessive allele detected. Black pigment distributed uniformly. Basic color is black in the absence of other modifying genes.

Cream

N/N - No evidence for the Cream dilution altered sequence detected. Basic color is sorrel or chestnut, bay or black in the absence of other modifying genes.

N/Cr - Heterozygous, dilute, one copy of Cream gene. Typical colors are palomino, buckskin and smoky black in the absence of other modifying genes.

Cr/Cr - Double dilute (two copies of Cream gene). Typical colors are cremello, perlino and smoky cream in the absence of other modifying genes.

Pearl

N/N - No evidence of the altered sequence detected.

N/Pr1 - One copy of the altered sequence detected. If Cream dilution is also present, a pseudo-double Cream dilute phenotype will result.

Pr1/Pr1 - Two copies of the altered sequence detected. On a chestnut base color, a uniform apricot color of body hair, mane and tail will result.

Tobiano

N/N - No evidence of altered sequence detected. Horse is not Tobiano.

N/TO - One copy of altered sequence. Approximately 50% of the offspring will inherit Tobiano.

TO/TO - Two copies of altered sequence. Horse is homozygous for Tobiano. All offspring will inherit Tobiano.

Silver

N/N - No evidence of the altered sequence detected.

N/Z - One copy of the altered sequence detected. Black-based horses will be chocolate with flaxen or lightened mane and tail. Bay-based horses will have lightened black pigment on lower legs, mane and tail. No effect on chestnut color.

Z/Z - Two copies of altered sequence detected. Black-based horses will be chocolate with flaxen or lightened mane and tail. Bay-based horses will have lightened black pigment on lower legs, mane and tail. No effect on chestnut color.

Lethal White Overo

N/N - No evidence for the altered sequence detected.

N/O - One copy of the altered sequence detected. If bred to another N/O horse, there is a 25% chance of producing a lethal white overo foal. The N/O type has been detected in Paints (including breeding stock), Pintos, Thoroughbreds, Miniatures, Quarter Horses and Tennessee Walking Horses.

O/O - Only the altered sequence in the EDNRB gene detected. This result has only been obtained with samples from lethal white overo foals.

Sabino 1

N/N - No evidence of altered sequence detected.

N/SB1 - One copy of the Sabino 1 gene detected. Horse typically may have 2 or more white legs, blaze, spots or roaning in the midsection and jagged margins around white areas.

SB1/SB1 - Two copies of the Sabino 1 gene detected. Complete or nearly complete white phenotype expected.

Champagne

N/N - No evidence of altered sequence detected.

N/Ch - One copy of the altered sequence detected. Chestnut color (red) is diluted to gold, bay to tan with brown points and black to darker tan with brown points.

Ch/Ch - Two copies of the altered sequence detected. All offspring are expected to be Champagne diluted.

Gray

N/N - No copies of the gray gene. Horse will not turn gray.

N/G - One copy of the gray gene. Horse will turn gray and approximately 50% of offspring will be gray.

G/G - Two copies of the gray gene. Horse will turn gray and all offspring will be gray.